

## 4.3 Denim

### Jeans, shorts and denim dress, skirt and shirts

Yarn & Fibre properties			Requirements
ISO 1833 (1977) / BS 4407	Fabric composition	M	100%: no tolerance Blend: +/- 3%
ISO 2060 ISO 7211-5 (1984) meth A	Yarn Count	M	+/- 5%
ISO 7211-2 (1984)	Fabric construction/ Threads per inch	M	+/- 5%
<b>Compulsory tests</b>			
ISO 6330 ISO 5077 (2007)	Dimensional stability to washing	M	3% max (Woven)
<b>Colour fastness</b>			
Change: ISO 105 A02 ISO 105-C08 (2002)  Staining: ISO 105 A03 ISO 105-C08 (2002)	Colour fastness to washing	M	Colour change: 3-4  Staining:3-4 Staining contrast trims: 4-5
ISO 105 - X12 (2002)	Colour fastness to rubbing	M	Dry: 3-4 Wet: 3  Dark colours + dyed fabrics Dry: 3 Wet: 2-3
<b>Tests on demand</b>			
ISO 105 - E04 (2002)	Colour fastness to perspiration	O	Colour change: 3-4 Staining: 3-4
ISO 105 - D01 (2010)	Colour fastness to dry-cleaning	O	Colour change: 3-4 Staining: 3-4
ISO 105 – E01 (2002)/ BS 1006 E01	Colour fastness to water	O	Colour change: 3-4 Staining: 3-4
ISO 105 B02 (2002)/ BS 1006 B02	Colour fastness to light	O	Grey scale: 4 BSW: 4
<b>Mechanical &amp; Physical properties</b>			
ISO 12945-2 (2000)	Pilling resistance/ Martindale	O	General: 3-4 Denim/Chambray:4
ASTM D 1230-10 (2016)e1	Flammability	O	< 88 gram/m <sup>2</sup>
ISO 13936-2 (2004)	Seam slippage	O	12 kg. (S.O. 6 mm)
ISO 13934-2 (1999)	Tensile strength	O	> 340 gr/m <sup>2</sup> 300N < 340 gr/m <sup>2</sup> elast. 200N
ISO 13935-2 (1999)	Seam strength	O	> 340 gr/m <sup>2</sup> 260N < 340 gr/m <sup>2</sup> elast. 150N
ISO 13937-1 (2000) Elmendorf	Tear strength	O	> 340 gr/m <sup>2</sup> 20N < 340 gr/m <sup>2</sup> 15N
ISO 14704-1 (2005)	Determination of elasticity of fabrics (stretch fabrics) (Residual elongation)	O	Result after 5 cycles, max stretch 1 min. Cycling loads as advised in standard. Recovery 1.5 min: 5%-8%

M= Mandatory / O= Optional (only on request of Wehkamp)